Congratulations! You passed!
TO PASS 70% or higher

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GRADE
100%

Confidence Interval - Introduction

LATEST SUBMISSION GRADE
100%

1. **Suppose we have a t-distribution symmetrically dispersed around mean of 0, with degrees of freedom 10.**

   What is the probability that a random value from this distribution will be greater than 1? Round to 2 decimal places.

   1 / 1 point

   0.17

   Correct
   Calculate the probability to the right of 1.

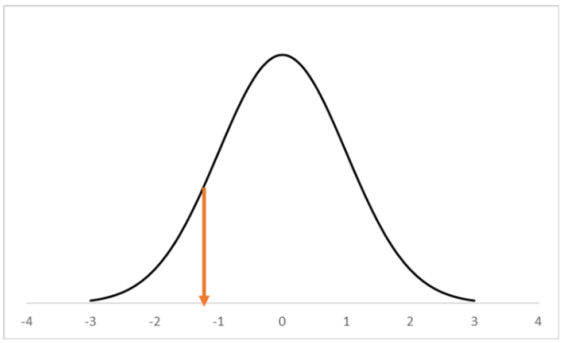
2. **Similarly, what is the probability that the value will fall between -1 and 1? Round to two decimals.**

   1 / 1 point

   0.66

   Correct
   =T.DIST(1, 10, TRUE) - T.DIST(-1, 10, TRUE)

3. 1 / 1 point



   In the t-distribution with 10 degrees of freedom given above, what is the correct formula to calculate the value that cuts of a probability of 10% to the left of that value?

   - =1-T.DIST(10, .10)
   - (•) =T.INV(.10, 10)
   - =T.DIST(.10, 10)
   - =1-T.INV(10, .10)

   Correct
   CORRECT

4. **Download the spreadsheet for "Portfolio Returns" below. Use the data in the spreadsheet for the remainder of the assignment.**

   1 / 1 point

   Course3, Week1-Quiz.xlsx

   This spreadsheet shows how a sample of portfolio managers fared on the stock market for the previous year. The numbers are in 'percentage', for example a stock return of 23.22 implies that the stock return was 23.22%. Each number represents a manager's most recent annual return.

   Construct a histogram with an appropriate bin size to visualize the data. How are the returns distributed? Choose the most appropriate option from the following.

   - (•) Normal distribution
   - Uniform distribution
   - Skewed to the right
   - Skewed to the left

   Correct
   CORRECT

5. **What is the average return for the sample of portfolio managers in the data? For the rest of the quiz, provide your answer rounded to two decimal places.**

   1 / 1 point

   4.76

   Correct
   Use the AVERAGE function

6. **What is the sample standard deviation of return for the portfolio managers?Provide your answer rounded to two decimal places.** 1 / 1 point

9.55

✓ Correct
Use the STDEV.S function

7. **Suppose we know that the actual population standard deviation is 9 (i.e. 9%). We wish to construct a confidence interval for the average return for the population of portfolio managers. Use the value of $z_{\alpha/2}$ to be 2. What is the resulting confidence interval?** 1 / 1 point

HINT: Please use the formula for confidence interval of a population mean using the z-statistic.

- (●) [4.04%, 5.48%]
- ( ) [1.24%, 8.68%]
- ( ) [0.40%, 9.52%]
- ( ) [1.12%, 8.40%]

✓ Correct
CORRECT

8. **How many portfolio returns in the data lie within this confidence interval?** 1 / 1 point

HINT: you can either use the COUNTIF function or sort the data and then manually count the observations

- ( ) 29
- ( ) 46
- (●) 34
- ( ) 55

✓ Correct
CORRECT =COUNTIF(B2:B626,"<5.48") - COUNTIF(B2:B626,"<4.04")